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The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:

IPEA/

### **PCT**

**CHAPTER II** 

#### **DEMAND**

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty.

For International Preliminary Examining Authority use only				
·				
Identification of IPEA		Date of receipt of DEMAND		
Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICA			Applicant's or agent's file reference 11346P5 WO/KTC	
International application No.	International filing date		(Earliest) Priority date (day/month/year)	
PCT/GB2004/004369	15 Octob	er 2004	7 November 2003	
Title of invention PACKAGING MEANS FOR EMANATI	ING PYRETHROID EF	FECTIVE IN CONT	ROLLING FLYING INSECTS	
Box No. II APPLICANT(S)				
Name and address: (Family name followed by a The address must include po		full official designation.	Telephone No. +61 29857 2000	
Reckitt Benckiser (Australia) 44 Wharf Road	Pty Limited		Facsimile No. +61 29858 5721	
West Ryde			Teleprinter No.	
NSW 2114				
AUSTRALIA			Applicant's registration No. with the Office	
State (that is, country) of nationality:		State (that is, count	(rry) of residence:	
	given name; for a legal entity, j	full official designation. Th	ne address must include postal code and name of country.)	
BOWMAN, Gary Raymond			•	
Reckitt Benckiser (Australia)	Pty Limited			
44 Wharf Road				
West Ryde NSW 2114				
AUSTRALIA				
State (that is, country) of nationality:		Ctota (that is count		
State (that is, country) of nationality:  AU		State (that is, country) of residence:  AU		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)				
Reckitt Benckiser (UK) Limite	ed			
103-105 Bath Road			·	
Slough				
Berkshire				
SL1 3UH				
UNITED KINGDOM				
State (that is, country) of nationality:		State (that is, country	y) of residence:	
GB			GB	
Further applicants are indicated on	a continuation sheet.			

International application No. PCT/GB2004/004369

Continuation	of Box	No. II	APPLICANT(S

If none of the following sub-boxes is used, this sheet should not be included in the demand.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

KEMMIS, Bruce Graham 55 Beresford Road Thornleigh New South Wales 2120 **AUSTRALIA** 

State (that is, country) of nationality:

State (that is, country) of residence:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of

MORRIS, Alan John 37 Fenton Street Ascot Vale Victoria 3052 **AUSTRALIA** 

State (that is, country) of nationality:

State (that is, country) of residence:

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

BALAKRISHNAN, Krishanthi Reckitt Benckiser (Australia) Pty Limited 44 Wharf Road West Ryde **NSW 2114 AUSTRALIA** 

State (that is, country) of nationality: LK State (that is, country) of residence:

AU

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

RIDLEY, Philip Stephen Reckitt Benckiser (Australia) Pty Limited 44 Wharf Road West Ryde **NSW 2114** 

**AUSTRALIA** 

State (that is, country) of nationality:

State (that is, country) of residence:

ΑU

ΑU

Further applicants are indicated on another continuation sheet.

Sheet No. ..3

International application No.
PCT/GB2004/004369

	1 01/902004/004000		
Continuation of Box No. II APPLICANT(S)			
If none of the following sub-boxes is used, this sheet should not be included in the demand.			
Name and address: (Family name followed by given name: for a legal entity, JUNUS, Rosita Reckitt Benckiser (Australia) Pty Limited 44 Wharf Road West Ryde NSW 2114 AUSTRALIA	full official designation. The address must include postal code and name of country.)		
State (that is, country) of nationality:	State (that is, country) of residence:		
AU	AU		
THOMPSON, Ian Andrew Reckitt Benckiser (Australia) Pty Limited 44 Wharf Road West Ryde NSW 2114 AUSTRALIA			
State (that is, country) of nationality:	State (that is, country) of residence:		
Name and address: (Family name followed by given name; for a legal entity, fi	dl official designation. The address must include postal code and name of		
State (that is, country) of nationality:	State (that is, country) of residence:		
Name and address: (Family name followed by given name; for a legal entity, fu	ll official designation. The address must include postal code and name of country.)  .		
State (that is, country) of nationality:	State (that is, country) of residence:		
Further applicants are indicated on another continuation shee	et.		

Sheet No. ..4

International application No. PCT/GB2004/004369

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR C	ORRESPONDENCE			
The following person is agent common representative				
and has been appointed earlier and represents the applicant(s) also for international preliminary examination.				
is hereby appointed and any earlier appointment of (an) agent(s)/common repres	entative is hereby revoked.			
is hereby appointed, specifically for the procedure before the International Prelir the agent(s)/common representative appointed earlier.	ninary Examining Authority, in addition to			
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)	Telephone No. +44 (0)1753 446232			
Karen Teresa Cawdell	Facsimile No.			
Reckitt Benckiser plc	+44 (0)1482 216876			
Legal Department - Patents Group  Dansom Lane	Teleprinter No.			
Hull, HU8 7DS	Agent's registration No. with the Office			
UNITED KINGDOM	Agent stegistration to, with the Office			
Address for correspondence: Mark this check-box where no agent or common space above is used instead to indicate a special address to which correspondence	representative is/has been appointed and the e should be sent.			
Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION				
Statement concerning amendments:*				
The applicant wishes the international preliminary examination to start on the basis of the	f:			
the international application as originally filed				
the description as originally filed				
as amended under Article 34				
the claims as originally filed				
as amended under Article 19 (together with any accompanying statement)				
as amended under Article 34				
the drawings as originally filed				
as amended under Article 34				
The applicant wishes any amendment to the claims under Article 19 to be considered.	tered as reversed			
<ul> <li>The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.</li> <li>Where the IPEA wishes to start the international preliminary examination at the same time as the international search in</li> </ul>				
accordance with Rule 69.1(b), the applicant requests the IPEA to postpone the start of the international preliminary examination until the expiration of the applicable time limit under Rule 69.1(d).				
4. The applicant expressly wishes the international preliminary examination to applicable time limit under Rule 54bis.1(a).	start earlier than at the expiration of the			
* Where no check-box is marked, international preliminary examination will start or as originally filed or, where a copy of amendments to the claims under Article 19 and/or under Article 34 are received by the International Preliminary Examining Authority befor the international preliminary examination report, as so amended.	amendments of the international application			
Language for the purposes of international preliminary examination: .English				
which is the language in which the international application was filed.				
which is the language of a translation furnished for the purposes of internation	onal search.			
which is the language of publication of the international application.				
which is the language of the translation (to be) furnished for the purposes of	international preliminary examination.			
Box No. V ELECTION OF STATES				
The filing of this demand constitutes the election of all Contracting States which are des	ignated and are hound by Change II of the			
PCT.	and are bound by Chapter II of the			

Sheet No. . . 5

International application No.

		PC1/GB200	4/004369
Box No. VI CHECK LIST			
The demand is accompanied by the following elements, in the Box No. IV, for the purposes of international preliminary examples.	For International Preliminary Examining Authority use only received not received		
translation of international application:	sheets		
2. amendments under Article 34 :	15 sheets		
copy (or, where required, translation) of amendments under Article 19	sheets		
4. copy (or, where required, translation) of statement under Article 19 :	sheets		
5. letter :	2 sheets		
6. other (specify) :	sheets		
The demand is also accompanied by the item(s) marked below:  1.  fee calculation sheet  2.  original separate power of attorney  3.  original general power of attorney  4.  copy of general power of attorney; reference number, if any:  Box No. VII SIGNATURE OF APPLICANT, AGENT OR  Next to each signature, indicate the name of the person signing and the capace	6. sequence listing 7. tables in electro sequence listing 8. other (specify):  COMMON REPRESENT	TATIVE	· · · · · · · · · · · · · · · · · · ·
Karen Teresa Cawdell Agent for the Applicants			•
For International Prelimina	ry Examining Authority use	only —	
Date of actual receipt of DEMAND:			
Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):			
The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.	expiration of	receipt of the dema fthe time limit under l below, does not appl	Rule 54 <i>bis</i> .1(a) and
The applicant has been informed accordingly.  4. The date of receipt of the demand is WITHIN the time limit of 19 months from the priority date as extended by virtue of Rule 80.5.  5. Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.	limit under l Rule 80.5.  8. Although the expiration of	eceipt of the demand Rule 54bis. 1(a) as ex ex ex date of receipt of the f the time limit under val is EXCUSED pu	tended by virtue of demand is after the Rule 54 <i>bis</i> .1(a), the
For Internation	nal Bureau use only		
Demand received from IPEA on:			

CHAPTER II

# **PCT**

#### FEE CALCULATION SHEET

#### Annex to the Demand

	For International Preliminary Examining Authority use only
International application No. PCT/GB2004/004369	,
Applicant's or agent's file reference 11346P5 WO/KTC	Date stamp of the IPEA
Applicant	<del>'</del>
Reckitt Benckiser (Australia) Pty Limited et a	
CALCULATION OF PRESCRIBED FEES	
Preliminary examination fee	1530.QQ P
2. Handling fee (Applicants from certain States are entitled to a reduction of 75% of the handling fee, Where the applicant is (or all applicants are) so entitled, the amount to be entered at H is 25% of the handling fee.)	129.00 H
Total of prescribed fees     Add the amounts entered at P and H     and enter total in the TOTAL box	1659.00 TOTAL -
MODE OF PAYMENT	
authorization to charge deposit account with the IPEA (see below)	
cheque revenue s	tamps
postal money order coupons	
bank draft other (spe	cify):
AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT A (This mode of payment may not be available at all IPEAs)	ACCOUNT
	ipea/ <u>EPO</u>
Authorization to charge the total fees indicated above.	Deposit Account No.: <u>2805 0225</u>
(This check-box may be marked only if the conditions for deposit accounts of the IPEA so permit) Authorization to	Date: 17 August 2005
charge any deficiency or credit any overpayment in the total fees indicated above.	Name: Karen Teresa Cawdell
	Signature:



# Payment of fees and costs

European Patent Office Directorate Cash and Accounts D – 80298 München Fax: (+49-89) 2399-2528

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02	UNITED KIN	IGDOM		account with EPO is reque	the	2805 0225	
	<u> </u>	Patent	application / Patent No. (A separate form	is required fo	r each applica	ition)	
03	E	P	РСТ	GB2004	/004369		03
		Code		Currency <sup>3</sup>	Amount		
04		001	Filing fee				
05		002	Search fee				
06		005	Designation fee(s) <sup>4</sup>				
07		015	Claims fee(s) (Rule 31(1) EPC)				-
08		055	Additional copy				
09		006	Examination fee			-	
10		007	Fee for grant including fee for printing (up to 35 pages)				•
11		008	Additional fee for printing (more than 35 pages)				
12		033	Renewal fee for the 3rd year				
13		034	Renewal fee for the 4th year				
14		035	Renewal fee for the 5th year				
15			Extension fee(s) for <sup>5</sup> :				
16		021	Preliminary examination fee	EUR	1530.00	,	
17		224	Handling fee	EUR	1 <b>3</b> 9.00		
18							
19							
20							
21							
22			Total	EUR	1689.00		
Sign	<sub>ature</sub> Karen Tere	sa Cawdel	I, Agent for the Applicant	Hull, Unit	ted Kingdo	m 17 Augu	st 2005

#### CLAIMS:

 A packaging means for retaining vapour active pyrethroids comprising a holder and a cellulosic based substrate or matrix impregnated and/or dosed with the 5 vapour active pyrethroid,

wherein the holder comprises a top, a base and a longitudinal member vertically extending from between the top and base thereby supporting the top and the base in a spaced-apart relationship, and

wherein the cellulosic based substrate or matrix has a honeycomb configuration adapted to be retained between the top and the base and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to control flying insects.

- 2. A packaging means for retaining vapour active pyrethroids comprising a holder and a cellulosic based substrate or matrix impregnated and/or dosed with the vapour active pyrethroid, wherein the holder comprises a top, a base and a longitudinal member vertically extending from between the top and base, and wherein the cellulosic matrix has a honeycomb configuration adapted to be retained between the top and base and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to control flying insects, and wherein the cellulosic substrate or matrix is comprised of two or more discrete parts.
- 3. The packaging means according to claim 2 wherein the 30 cellulosic substrate is comprised of two parts.

- 4. The packaging means according to claim 3 wherein the two parts are of substantially identical dimensions.
- 5. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a surface area of about 50 5000 cm² and a height of about 8 23 cm.
- 6. The packaging means according to any one of the 10 preceding claims wherein the cellulosic based substrate or matrix has a surface area of about 50 5000 cm<sup>2</sup> and a height of about 17.5 cm.
- 7. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a surface area of about 180 2400 cm<sup>2</sup> and a height of about 8 23 cm.
- The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or
   matrix has a surface area of about 180-2400 cm<sup>2</sup> and a height of about 17.5 cm.
- The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or
   matrix has a grammage of about 12 - 260 gsm.
  - 10. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a grammage of about 18 40 gsm

- 11. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a grammage of about 18 gsm.
- 5 12. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 2-3000 mg/m<sup>2</sup> of surface area.

- 13. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 16 320 mg/m<sup>2</sup> of surface area.
- 14. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 130-320 mg/m² of surface area
- 15. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or 25 matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 48-960 mg/m<sup>2</sup> of surface area.
- 16. The packaging means according any one of the 30 preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active

pyrethroid in an amount of about  $390-960 \text{ mg/m}^2$  of surface area.

- 17. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 144-2880 mg/m² of surface area.
- 10 18. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 1170-2880 mg/m<sup>2</sup> of surface area.

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19. The packaging means according to any one of the preceding claims wherein the longitudinal member is releasably attachable to the top, base or both of the top and base.

- 20. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix, or the longitudinal vertically extending member, or both, are capable of being extended so that the top and base are in an open state or collapsed so that the top and base are in a closed state.
- 21. The packaging means according to claim 20 wherein the open state allows the vapour active pyrethroid to emanate 30 into the atmosphere.

22. The packaging means according to claim 20 wherein the closed state substantially seals the cellulosic based substrate or matrix so that a minimal amount of vapour active pyrethroid is emanated into the atmosphere.

- 23. The packaging means according to claim 20 wherein the top and base are capable of being maintained in an intermediate state between the open and closed states thereby allowing the amount of surface area of the cellulosic based substrate or matrix exposed to the atmosphere to be controlled resulting in the control of the amount of vapour active pyrethroid emanated.
- 24. The packaging means according to any one of the 15 preceding claims wherein the longitudinal member vertically extending between the top and the base is a column.
- 25. The packaging means according to claim 24 wherein the 20 column is collapsible by folding at one or more hinged joints.
- 26. The packaging means according to claim 24 or claim 25 wherein the column is comprised of one or more parts and 25 is collapsible by telescopic movement of the one or more parts of the column within the other parts of the column.
- 27. The packaging means according to any one of claims 24 to 26 wherein the column is comprised of two or more 30 interfitting parts.

- 28. The packaging means according to any one of claims 24 to 27 wherein the column is comprised of two or more releasable interfitting parts.
- 5 29. The packaging means according to any one of claims 24 to 27 wherein the column is comprised of two or more non-releasable interfitting parts.
- 30. The packaging means according to claim 27 wherein the 10 parts are able to be interfitted by means of a slotted configuration wherein each respective part comprises a slot which fits into the slot of another one or more parts
- 15 31. The packaging means according to any one of claims 24 to 30 wherein the top is adapted to receive the column through an aperture thereby allowing the top to be moved along the column by a sliding motion so that the holder is able to be opened by sliding the top away from the base or closed by sliding the top towards the base.
- 32. The packaging means according to any one of the preceding claims wherein the longitudinal member vertically extending between the top and the base is a spring.
- 33. The packaging means according to claim 32 wherein the spring is compressed in the resting state so that the cellulosic based substrate or matrix is maintained in a collapsed state in the absence of an externally applied force.

- 34. The packaging means according to claim 32 or claim 33 wherein the spring is uncompressed in the resting state so that the cellulosic based substrate or matrix is maintained in an extended state in the absence of an externally applied force.
- 35. The packaging means according to any one of the preceding claims wherein the holder and cellulosic based substrate or matrix are adapted to allow the cellulosic natrix to be releasably retained in the holder and replaced as required.
- 36. The packaging means according to any one of the preceding claims wherein the holder comprises a slot within the periphery of each of the top and base and the cellulosic based substrate or matrix comprises a card on each of its ends, wherein the cards are able to be slid within the slots thereby allowing the cellulosic based substrate or matrix to be releasably retained in the 20 holder.
- 37. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is adapted to receive the longitudinal member through an aperture thereby retaining the cellulosic based substrate or matrix between the top and base.
- 38. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or 30 matrix is able to be replaced by detaching the top or base, or both, from the longitudinal member, mounting the cellulosic based substrate or matrix about the

longitudinal member, and reattaching the top or base, or both, to the longitudinal member.

- 39. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is able to be removed and replaced without the need to detach either the top or base from the longitudinal member.
- 10 40. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is able to be removed and replaced while the top and base are in a closed position.
- 15 41. The packaging means according to any one of the preceding claims wherein the longitudinal member is capable of being stored within the packaging means when the top and base are in a closed position.
- 20 42. The packaging means according to any one of the preceding claims wherein the top further comprises a protruding rim and wherein the base has a means for engaging the protruding rim to substantially seal the vapour active pyrethroid when the top and base are in the 25 closed state.
  - 43. The packaging means according to any one of the preceding claims wherein the top is a lid.
- 30 44. The packaging means according to any one of the preceding claims further comprising an end-of-life (EOL) indicator comprising a counter, an indicator display

located on the counter and a gear mechanism adapted to rotate the counter one increment each time the packaging means is extended from a closed position to an open position and/or collapsed from an open position to a closed position, such that a user is able to ascertain from the display when the packaging means is substantially depleted in vapour active pyrethroid thereby having reached its EOL.

- 0 45. The packaging means according to claim 44 wherein the indicator display is a numeric or colour graphic display.
- 46. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or 15 matrix is attached to the top and base, wherein the base is able to be surface mounted and is connected to the longitudinal member having a hook on its end, and wherein the cellulosic substrate or matrix is able to be extended and supported in the extended state by attachment of the top to the hook.
- 47. A method of emanating a vapour active pyrethroid into the atmosphere by the use of a packaging means for retaining vapour active pyrethroids comprising a holder and a cellulosic based substrate or matrix impregnated and/or dosed with the vapour active pyrethroid,

wherein the holder comprises a top, a base and a longitudinal member vertically extending from between the top and base thereby supporting the top and the base in a 30 spaced-apart relationship, and

wherein the cellulosic based substrate or matrix has a honeycomb configuration adapted to be retained between

the top and the base and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to control flying insects.

- 5 48. The method according to claim 47 wherein the cellulosic based substrate or matrix has a surface area of about 50 5000 cm<sup>2</sup> and a height of about 8 23 cm.
- 49. The method according to claim 47 or 48 wherein the 10 cellulosic based substrate or matrix has a surface area of about  $50 5000 \text{ cm}^2$  and a height of about 17.5 cm.
- 50. The method according to any one of claims 47 to 49 wherein the cellulosic based substrate or matrix has a surface area of about 180 2400 cm<sup>2</sup> and a height of about 8 23 cm.
- 51. The method according to any one of claims 47 to 50 wherein the cellulosic based substrate or matrix has a 20 surface area of about 180 2400 cm<sup>2</sup> and a height of about 17.5 cm.
- 52. The method according to any one of claims 47 to 51 wherein the cellulosic based substrate or matrix has a 25 grammage of about 12 260 gsm.
  - 53. The method according to any one of claims 47 to 52 wherein the cellulosic based substrate or matrix has a grammage of about 18 40 gsm.

- 54. The method according to any one of claims 47 to 53 wherein the cellulosic based substrate or matrix has a grammage of about 18 gsm.
- 5 55. The method according to any one of claims 47 to 54 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 2-3000 mg/m<sup>2</sup> of surface area.
- 10 56. The method according to any one of claims 47 to 55 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 16-320 mg/m<sup>2</sup> of surface area.
- 15 57. The method according to any one of claims 47 to 56 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 130-320 mg/m<sup>2</sup> of surface area.
- 20 58. The method according to any one of claims 47 to 57 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 48-960 mg/m<sup>2</sup> of surface area.
- 25 59. The method according to any one of claims 47 to 58 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 390-960 mg/m<sup>2</sup> of surface area.
- 30 60. The method according to any one of claims 47 to 59 wherein the cellulosic based substrate or matrix is

impregnated and/or dosed with vapour active pyrethroid in an amount of about  $144-2880 \text{ mg/m}^2$  of surface area.

- 61. The method according to any one of claims 47 to 60 5 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 1170-2880 mg/m<sup>2</sup> of surface area.
- 62. The method according to any one of claims 47 to 61 10 for controlling any one of mosquitoes, flies, gnats, sandflies, midges, moths.
  - 63. The method according to any one of claims 47 to 62 for controlling mosquitoes.

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- 64. The use of a packaging means for retaining and emanating vapour active pyrethroids comprising a holder and a cellulosic based substrate or matrix impregnated and/or dosed with the vapour active pyrethroid,
- wherein the holder comprises a top, a base and a longitudinal member vertically extending from between the top and base, and

wherein the cellulosic based substrate or matrix has a honeycomb configuration adapted to be retained between 25 the top and base and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to repel insects.

65. The use according to claim 64 wherein the cellulosic 30 based substrate or matrix has a surface area of about 50 - 5000 cm<sup>2</sup> and a height of about 8 - 23 cm.

- 66. The use according to claim 64 or claim 65 wherein the cellulosic based substrate or matrix has a surface area of about  $50 5000 \text{ cm}^2$  and a height of about 17.5 cm.
- 5 67. The use according to any one of claims 64 to 66 wherein the cellulosic based substrate or matrix has a surface area of about 180 2400 cm<sup>2</sup> and a height of about 8 23 cm.
- 10 68 The use according to any one of claims 64 to 67 wherein the cellulosic based substrate or matrix has a surface area of about 180 -2400 cm<sup>2</sup> and a height of about 17.5 cm.
- 69. The use according to any one of claims 64 to 68
  15 wherein the cellulosic based substrate or matrix has a grammage of about 12 260 gsm.
- 70. The use according to any one of claims 64 to 68 wherein the cellulosic based substrate or matrix has a 20 grammage of about 18 40 gsm.
  - 71. The use according to any one of claims 64 to 69 wherein the cellulosic based substrate or matrix has a grammage of about 18 gsm.

72. The use according to any one of claims 64 to 70 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 2-3000  $mg/m^2$  of surface area.

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73. The use according to any one of claims 64 to 71 wherein the cellulosic based substrate or matrix is

impregnated and/or dosed with vapour active pyrethroid in an amount of about  $16-320 \text{ mg/m}^2$  of surface area.

- 74. The use according to any one of claims 64 to 72 5 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 130-320 mg/m<sup>2</sup> of surface area.
- 75. The use according to any one of claims 64 to 73 10 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 48-960 mg/m<sup>2</sup> of surface area.
- 76. The use according to any one of claims 64 to 74
  15 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 390-960 mg/m<sup>2</sup> of surface area.
- 77. The use according to any one of claims 64 to 75 20 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 144-2880 mg/m<sup>2</sup> of surface area.
- 78. The use according to any one of claims 64 to 76
  25 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 1170-2880 mg/m<sup>2</sup> of surface area.
- 79. The use of the packaging means of any one of claims 30 71 to 85 for controlling any one of mosquitoes, flies, gnats, sandflies, midges, moths.

80. The use of the packaging means of any one of claims 71 to 86 for controlling mosquitoes.

#### CLAIMS:

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 A packaging means for retaining vapour active pyrethroids comprising a holder and a cellulosic based substrate or matrix impregnated and/or dosed with the vapour active pyrethroid,

wherein the holder comprises a top, a base and a longitudinal member vertically extending from between the thereby supporting the top and the base top and base, and in a spaced-apart relaboration

wherein the cellulosic based substrate or matrix has

10 a honeycomb configuration adapted to be retained between
the top and base and has a surface area so as to achieve
sufficient emanation of the vapour active pyrethroid to
control flying insects.

- 15 2. packaging means for retaining vapour pyrethroids comprising a holder and a cellulosic based substrate or matrix impregnated and/or dosed with the vapour active pyrethroid, wherein the holder comprises a top, a base and a longitudinal member vertically extending 20 from between the top and base, and wherein the cellulosic honeycomb configuration adapted to matrix has а retained between the top and base and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to control flying insects, and wherein the 25 cellulosic substrate or matrix is comprised of two or more discrete parts.
  - 3. The packaging means according to claim 2 wherein the cellulosic substrate is comprised of two parts.
  - 4. The packaging means according to claim 3 wherein the two parts are of substantially identical dimensions.

- 5. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a surface area of about 50 5000 cm² and a 5 height of about 8 23 cm.
- 6. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a surface area of about 50 - 5000 cm<sup>2</sup> and a 10 height of about 17.5 cm.
- 7. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a surface area of about 180 2400 cm² and a 15 height of about 8 23 cm.
  - 8. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a surface area of about  $180-2400 \, \text{cm}^2$  and a height of about  $17.5 \, \text{cm}$ .

- 9. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a grammage of about  $12 260 \, \text{gsm}$ .
- 25 10. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix has a grammage of about 18 - 40 gsm
- 11. The packaging means according to any one of the 30 preceding claims wherein the cellulosic based substrate or matrix has a grammage of about 18 gsm.

- 12. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 2-3000 mg/m<sup>2</sup> of surface 5 area.
- 13. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 16 320 mg/m² of surface area.
- 14. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or 15 matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 130-320 mg/m<sup>2</sup> of surface area
- 15. The packaging means according to any one of the 20 preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 48-960 mg/m<sup>2</sup> of surface area.
- 25 16. The packaging means according any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 390-960 mg/m<sup>2</sup> of surface area.

17. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or

matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about  $144-2880~\text{mg/m}^2$  of surface area.

18. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 1170-2880 mg/m<sup>2</sup> of surface area.

10

19. The packaging means according to any one of the preceding claims wherein the longitudinal member is releasably attachable to the top, base or both of the top and base.

- 20. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix, or the longitudinal vertically extending member, or both, are capable of being extended so that the top and base are in an open state or collapsed so that the top and base are in a closed state.
- 21. The packaging means according to claim 20 wherein the open state allows the vapour active pyrethroid to emanate into the atmosphere.
- 22. The packaging means according to claim 20 wherein the closed state substantially seals the cellulosic based substrate or matrix so that a minimal amount of vapour 30 active pyrethroid is emanated into the atmosphere.

- 23. The packaging means according to claim 20 wherein the top and base are capable of being maintained in an intermediate state between the open and closed states thereby allowing the amount of surface area of the 5 cellulosic based substrate or matrix exposed to the atmosphere to be controlled resulting in the control of the amount of vapour active pyrethroid emanated.
- 24. The packaging means according to any one of the 10 preceding claims wherein the longitudinal member vertically extending between the top and the base is a column.
- 25. The packaging means according to claim 24 wherein the 15 column is collapsible by folding at one or more hinged joints.
- 26. The packaging means according to claim 24 or claim 25 wherein the column is comprised of one or more parts and 20 is collapsible by telescopic movement of the one or more parts of the column within the other parts of the column.
- 27. The packaging means according to any one of claims 24 to 26 wherein the column is comprised of two or more interfitting parts.
  - 28. The packaging means according to any one of claims 24 to 27 wherein the column is comprised of two or more releasable interfitting parts.

- 29. The packaging means according to any one of claims 24 to 27 wherein the column is comprised of two or more non-releasable interfitting parts.
- 30. The packaging means according to claim 27 wherein the parts are able to be interfitted by means of a slotted configuration wherein each respective part comprises a slot which fits into the slot of another one or more parts

- 31. The packaging means according to any one of claims 24 to 30 wherein the top is adapted to receive the column through an aperture thereby allowing the top to be moved along the column by a sliding motion so that the holder is able to be opened by sliding the top away from the base or closed by sliding the top towards the base.
- 32. The packaging means according to any one of the preceding claims wherein the longitudinal member 20 vertically extending between the top and the base is a spring.
- 33. The packaging means according to claim 32 wherein the spring is compressed in the resting state so that the 25 cellulosic based substrate or matrix is maintained in a collapsed state in the absence of an externally applied force.
- 34. The packaging means according to claim 32 or claim 33 wherein the spring is uncompressed in the resting state so that the cellulosic based substrate or matrix is

maintained in an extended state in the absence of an externally applied force.

- 35. The packaging means according to any one of the preceding claims wherein the holder and cellulosic based substrate or matrix are adapted to allow the cellulosic matrix to be releasably retained in the holder and replaced as required.
- 10 36. The packaging means according to any one of the preceding claims wherein the holder comprises a slot within the periphery of each of the top and base and the cellulosic based substrate or matrix comprises a card on each of its ends, wherein the cards are able to be slid within the slots thereby allowing the cellulosic based substrate or matrix to be releasably retained in the holder.
- 37. The packaging means according to any one of the 20 preceding claims wherein the cellulosic based substrate or matrix is adapted to receive the longitudinal member through an aperture thereby retaining the cellulosic based substrate or matrix between the top and base.
- 25 38. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is able to be replaced by detaching the top or base, or both, from the longitudinal member, mounting the cellulosic based substrate or matrix about the longitudinal member, and reattaching the top or base, or both, to the longitudinal member.

- 39. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is able to be removed and replaced without the need to detach either the top or base from the longitudinal member.
- 40. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is able to be removed and replaced while the top and base are in a closed position.
- 41. The packaging means according to any one of the preceding claims wherein the longitudinal member is capable of being stored within the packaging means when the top and base are in a closed position.
- 42. The packaging means according to any one of the preceding claims wherein the top further comprises a protruding rim and wherein the base has a means for engaging the protruding rim to substantially seal the vapour active pyrethroid when the top and base are in the closed state.
- 43. The packaging means according to any one of the 25 preceding claims wherein the top is a lid.
- 44. The packaging means according to any one of the preceding claims further comprising an end-of-life (EOL) indicator comprising a counter, an indicator display located on the counter and a gear mechanism adapted to rotate the counter one increment each time the packaging means is extended from a closed position to an open

position and/or collapsed from an open position to a closed position, such that a user is able to ascertain from the display when the packaging means is substantially depleted in vapour active pyrethroid thereby having 5 reached its EOL.

- 45. The packaging means according to claim 44 wherein the indicator display is a numeric or colour graphic display.
- 10 46. The packaging means according to any one of the preceding claims wherein the cellulosic based substrate or matrix is attached to the top and base, wherein the base is able to be surface mounted and is connected to the longitudinal member having a hook on its end, and wherein the cellulosic substrate or matrix is able to be extended and supported in the extended state by attachment of the top to the hook.
- 47. A cellulosic based substrate of matrix having a 20 honeycomb structure that when in an extended state, has a surface area of about 50 5000 cm<sup>2</sup> and a height of about 8 23 cm.
- 48. The cellulosic based substrate or matrix according to claim 47 having a honeycomb structure that when in an extended state, has a surface area of about 50 5000 cm<sup>2</sup> and a height of about 17.5 cm.
- 49. A cellulosic based substrate or matrix according to 30 claim 47 or claim 48 having a honeycomb structure that when in an extended state, has a surface area of about 180 2400 cm<sup>2</sup> and a height of about 8 23 cm.

- 50. The cellulosic based substrate or matrix according to any one of claims 47 to 49 having a honeycomb structure that when in an extended state, has a surface area of about 180 2400 cm<sup>2</sup> and a height of about 17.5 cm.
  - 51. The cellulosic based substrate or matrix according any one of claims 47 to 50 having a grammage of about 12 260 gem.
  - 52. The cellulosic based substrate or matrix according to any one of claims 47 to 51 having a grammage of about 18 40 gsm.

- 15 53. The cellulosic based substrate or matrix according to any one of claims 47 to 52 having a grammage of about 18 gsm.
- 20 the atmosphere by the use of a packaging means for retaining vapour active pyrethroids comprising a holder and a cellulosic based substrate or matrix impregnated and/or dosed with the vapour active pyrethroid,

wherein the holder comprises a top, a base and a

25 longitudinal member vertically extending from between the
thereby supporting the top and the base in a
top and base, and

Spaced-apart relationship

wherein the cellulosic based substrate or matrix has a honeycomb configuration adapted to be retained between the top and base and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to control flying insects.

- 49.55. The method according to claim 54 wherein the cellulosic based substrate or matrix has a surface area of about 50 5000 cm<sup>2</sup> and a height of about 8 23 cm.
- 5 56. The method according to claim 54 or 58 wherein the cellulosic based substrate or matrix has a surface area of about 50 5000 cm<sup>2</sup> and a height of about 17.5 cm.
- 50
  51. The method according to any one of claims 54 to 56
  10 wherein the cellulosic based substrate or matrix has a surface area of about 180 2400 cm<sup>2</sup> and a height of about 8 23 cm.
- 51 58. The method according to any one of claims 54 to 51 15 wherein the cellulosic based substrate or matrix has a surface area of about 180 2400 cm<sup>2</sup> and a height of about 17.5 cm.
- 52
  59. The method according to any one of claims 54 to 58
  20 wherein the cellulosic based substrate or matrix has a grammage of about 12 260 gsm.
- 53
  60. The method according to any one of claims 54 to 59
  wherein the cellulosic based substrate or matrix has a
  25 grammage of about 18 40 gsm.
  - 54. Since the second of the se
- 30 55
  62. The method according to any one of claims 54 to 61 wherein the cellulosic based substrate or matrix is

impregnated and/or dosed with vapour active pyrethroid in an amount of about  $2-3000~\text{mg/m}^2$  of surface area.

- 55 63. The method according to any one of claims 54 to 62 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 16-320 mg/m<sup>2</sup> of surface area.
- 57
  64. The method according to any one of claims 54 to 68
  10 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 130-320 mg/m<sup>2</sup> of surface area.
- 58
  65. The method according to any one of claims 54 to 64
  15 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 48-960 mg/m<sup>2</sup> of surface area.
- 59
  66. The method according to any one of claims 54 to 68
  20 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 390-960 mg/m<sup>2</sup> of surface area.
- 47 59

  M. The method according to any one of claims 54 to 66

  25 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 144-2880 mg/m<sup>2</sup> of surface area.
- 61 47 60 66. The method according to any one of claims 54 to 61 30 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 1170-2880 mg/m<sup>2</sup> of surface area.

- for controlling any one of mosquitoes, flies, gnats, sandflies, midges, moths.
- 5 63 70. The method according to any one of claims 54 to 68 for controlling mosquitoes.
- 7. The use of a packaging means for retaining and meanating vapour active pyrethroids comprising a holder and a cellulosic based substrate or matrix impregnated and/or dosed with the vapour active pyrethroid,

wherein the holder comprises a top, a base and a longitudinal member vertically extending from between the top and base, and

wherein the cellulosic based substrate or matrix has a honeycomb configuration adapted to be retained between the top and base and has a surface area so as to achieve sufficient emanation of the vapour active pyrethroid to repel insects.

- $\mathcal{V}$ . The use according to claim  $\mathcal{V}$  wherein the cellulosic based substrate or matrix has a surface area of about 50 5000 cm<sup>2</sup> and a height of about 8 23 cm.
- 73. The use according to claim 71 or claim 72 wherein the cellulosic based substrate or matrix has a surface area of about 50 5000 cm<sup>2</sup> and a height of about 17.5 cm.
- 67
  30 74. The use according to any one of claims 71 to 78
  wherein the cellulosic based substrate or matrix has a

surface area of about  $180 - 2400 \text{ cm}^2$  and a height of about 8 - 23 cm.

- The use according to any one of claims of to the surface area of about 180 -2400 cm<sup>2</sup> and a height of about 17.5 cm.
- 76. The use according to any one of claims 71 to 75 wherein the cellulosic based substrate or matrix has a grammage of about 12 260 gsm.
- The use according to any one of claims of to 7% wherein the cellulosic based substrate or matrix has a grammage of about 18 40 gsm.
  - 71. 78. The use according to any one of claims  $\mathcal{H}$  to  $\mathcal{H}$  wherein the cellulosic based substrate or matrix has a grammage of about 18 gsm.
- 72. The use according to any one of claims 71 to 78 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 2-3000 mg/m<sup>2</sup> of surface area.
- 25 73 20. The use according to any one of claims 21 to 29 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 16-320 mg/m² of surface area.

impregnated and/or dosed with vapour active pyrethroid in an amount of about  $130-320 \text{ mg/m}^2$  of surface area.

- 35. The use according to any one of claims 71 to 81. 5 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 48-960 mg/m<sup>2</sup> of surface area.
- 3. The use according to any one of claims 71 to 82 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 390-960 mg/m<sup>2</sup> of surface area.
- 94. The use according to any one of claims 71 to 88 impregnated and/or dosed with vapour active pyrethroid in an amount of about 144-2880 mg/m<sup>2</sup> of surface area.
- 78
  95. The use according to any one of claims 11 to 84
  20 wherein the cellulosic based substrate or matrix is impregnated and/or dosed with vapour active pyrethroid in an amount of about 1170-2880 mg/m² of surface area.
- 79
  86. The use of the packaging means of any one of claims
  25 71 to 85 for controlling any one of mosquitoes, flies, gnats, sandflies, midges, moths.
  - The use of the packaging means of any one of claimsto 86 for controlling mosquitoes.

88. An indicator for indicating the end-of-life (EOL) of a packaging means for retaining and emanating a vapour

active pyrethroid comprising a counter, an indicator display located on the counter and a gear mechanism adapted to rotate the counter one increment each time the packaging means is extended from closed position to an open position such that a user is able to ascertain from the display when the packaging means is substantially depleted in vapour active pyrethroid thereby having reached the EOL.

- 10 89. The indicator of claim 88 wherein the gear mechanism is adapted to rotate the counter one increment each time the packaging means is collapsed from an open position to a closed position.
- gear mechanism is adapted to rotate the counter one increment each time the packaging means is extended from an open position to a closed position and collapsed from an open position to a closed position.

- 91. The indicator according to any one of claims 88 to 90 wherein the indication is by means of a graphic display.
- 92. The indicator according to claim 91 wherein the 25 graphic display comprises a change in colour as an indicator of EOL.
- 91. The indicator according to claim 91 wherein the graphic display comprises a gradation in colour as an indicator of EOL.

- 93. The indicator according to claim 91 wherein the graphic display comprises a numerical display as an indicator of EOL.
- 5 94. The indicator according to claim 91 wherein the graphic display comprises a series of dots of changing size as an indicator of EOL.
- 95. The indicator according to any one of claims 88 to 94 10 wherein the user is able to set the EOL indicator to a desired EOL period.
  - 96. The indicator according to any one of claims 88 to 95 wherein the user is able to reset the EOL indicator.

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